Listing of the Claims

1. (Currently Amended) A biocompatible meniscal repair device, comprising;

a biocompatible tissue repair scaffold adapted to be placed in contact with a defect in a meniscus, wherein the scaffold comprises a high density dry laid nonwoven polymeric material, and wherein the scaffold has ~~a~~ an initial modulus of elasticity greater than about 1.5 ~~MPA~~ MPa and ~~a~~ an initial suture pull-out strength greater than about 6 N, and wherein viable tissue is disposed on the tissue repair scaffold, the viable tissue having viable cells capable of integrating with native tissue adjacent to the tissue repair scaffold.

2. (Currently Amended) The repair device of claim 1, wherein the tissue repair scaffold has ~~a~~ an initial peak stress greater than about 2 MPa.

3. (Currently Amended) The repair device of claim 1, wherein the tissue repair scaffold has ~~a~~ an initial suture pull-out strength less than about 45 N.

4. (Currently Amended) The repair device of claim 1, wherein the tissue repair scaffold has ~~a~~ an initial modulus of elasticity less than about 40 MPa.

5. (Original) The repair device of claim 1, wherein the tissue repair scaffold has a thickness in the range of about 0.5 mm to 1.5 mm.

6. (Original) The repair device of claim 1, wherein the tissue repair scaffold further comprises a biocompatible foam material joined to the nonwoven polymeric material.

7. (Original) The repair device of claim 1, the nonwoven polymeric material comprises a synthetic polymer.

8. (Original) The repair device of claim 1, wherein the tissue repair scaffold is bioabsorbable.

9. (Cancelled) The repair device of claim 1, wherein the nonwoven polymeric material comprises a material formed by a dry lay process.

10. (Original) The repair device of claim 1, wherein the nonwoven polymeric material is formed from at least one polymer derived from monomers selected from the group consisting of glycolide, lactide, caprolactone, trimethylene carbonate, polyvinyl alcohol, and dioxanone.

11. (Original) The repair device of claim 10, wherein the nonwoven polymeric material comprises polydioxanone.

12. The repair device of claim 10, wherein the nonwoven polymeric material comprises a copolymer of polyglycolic acid and polylactic acid.

13. (Original) The repair device of claim 1, further comprising at least one bioactive substance effective to stimulate cell growth.

14. (Original) The repair device of claim 13, wherein the bioactive substance is selected from the group consisting of a platelet rich plasma, cartilage-derived morphogenic proteins, recombinant human growth factors, and combinations thereof.

15. (Cancelled) The repair device of claim 1, further comprising a viable tissue sample disposed on the tissue repair scaffold and effective to integrate with native tissue adjacent to the tissue repair scaffold.

16. (Original) The repair device of claim 1, wherein the nonwoven polymeric material comprises crimped, synthetic polymer fibers.

17. (Original) The repair device of claim 1, wherein the nonwoven polymeric material is heat-set.

18. (Original) The repair device of claim 1, wherein the fiber orientation of the nonwoven polymeric material is isotropic.

19. (Original) A biocompatible meniscal repair device, comprising;

a biocompatible tissue repair scaffold adapted to be placed in contact with a defect in a meniscus, the scaffold including; :

(a) a high-density, dry laid nonwoven polymeric material,; and

(b) a biocompatible foam;; and

(c) viable tissue disposed on the tissue repair scaffold, the viable tissue containing viable cells capable of integrating with native tissue adjacent to the tissue repair scaffold,

wherein, the scaffold provides increased suture pull-out strength.

20. (Original) The repair device of claim 19, wherein the tissue repair scaffold has a peak stress in the range of about 2 MPa to 14 MPa.

21. (Original) The repair device of claim 19, wherein the tissue repair scaffold has a suture pull-out strength in the range of about 6 N to 45 N.

22. (Original) The repair device of claim 19, wherein the tissue repair scaffold has a modulus of elasticity in the range of about 1.5 MPa to 40 MPa.

23. (Original) The repair device of claim 19, wherein the tissue repair scaffold has a thickness in the range of about 0.5 mm to 1.5 mm.

24. (Original) The repair device of claim 19, the nonwoven polymeric material comprises a synthetic polymer.

25. (Original) The repair device of claim 19, wherein the tissue repair scaffold is bioabsorbable.

26. (Original) The repair device of claim 19, further comprising at least one bioactive substance effective to stimulate cell growth.

27. (Original) The repair device of claim 26, wherein the bioactive substance is selected from the group consisting of a platelet rich plasma, cartilage-derived morphogenic proteins, recombinant human growth factors, and combinations thereof.

28. (Cancelled) The repair device of claim 19, further comprising a viable tissue sample disposed on the tissue repair scaffold and effective to integrate with native tissue adjacent to the tissue repair scaffold.

29. (Withdrawn) A method of surgically repairing meniscal defects, comprising:

providing a biocompatible tissue repair scaffold having a modulus of elasticity greater than about 1.5 MPA and a suture pull-out strength greater than about 6 N;

positioning the tissue repair scaffold in contact with a tissue defect in a meniscus; and

fixing tissue repair scaffold in position with sutures,

wherein the repair scaffold provides increased suture pull-out strength and thereby promotes healing of the meniscus.

30. (Withdrawn) The method of claim 29, wherein at least one bioactive substance effective to stimulate cell growth is implanted with the tissue repair scaffold.

31. (Withdrawn) The method of claim 30, wherein the bioactive substance is selected from the group consisting of a platelet rich plasma, cartilage-derived morphogenic proteins, recombinant human growth factors, and combinations thereof.

32. (New) The repair device of claim 1, wherein the viable tissue disposed on the tissue

repair scaffold is selected from the group consisting of minced tissue, sliced tissue, and a tissue strip.

33. (New) The repair device of claim 19, wherein the viable tissue disposed on the tissue repair scaffold is selected from the group consisting of minced tissue, sliced tissue, and a tissue strip.

34. (New) The repair device of claim 1, wherein the scaffold consists essentially of a high density dry laid non-woven polymeric material.